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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/955,267	09/18/2001	Barry Freel	6340/16	8699

7590 03/27/2003

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EXAMINER	
NGUYEN, TAM M	

ART UNIT	PAPER NUMBER
1764	10

DATE MAILED: 03/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/955,267	FREEL ET AL.	
	Examiner	Art Unit	
	Tam M. Nguyen	1764	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 September 2001* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *18 September 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *7 & 9* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 3 is rejected under 35 U.S.C. 102(b) as being anticipated by Ward et al. (4,428,862).

Ward discloses a light naphtha fraction having a boiling point of from C_5 to 280° F (see table VIII). It is noted that Ward does not specifically disclose that the liquid product has less than 50% of the components evolving at temperatures above 538° C during simulation distillation. However, the light naphtha of Ward has an end boiling point of 280° F (138° C). Therefore, it would be expected that the War light naphtha would have less than 50% of the components evolving at temperatures above 538° C during simulation distillation as claimed. This is deemed to anticipate the limitation of claim 3.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Freel et al. (5,792,340) in view of Ikura et al. (5,120,428)

Freel discloses a method for the fast pyrolysis of carbonaceous materials (e.g., heavy oil, coal, and petroleum derived liquids) involving rapid mixing. (See abstract; col. 6, line 64 through col. 7, line 43; col. 12, lines 9-27; claim 1)

Freel does not disclose a product having physical and chemical characteristics as claim in claim 1.

Ikura discloses a heavy hydrocarbon oil (e.g., Saskatchewan) (see col. 2, line 49-50; col. 3, lines 40-41).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the process of Freel by using the Saskatchewan heavy oil of Ikura because any carbonaceous materials including the Saskatchewan oil can be employed as a feedstock in the process of Freel and the Saskatchewan oil would be effectively upgraded in the process of Freel because the Saskatchewan oil is a heavy oil. The liquid product of Freel would have inherently the claimed characteristics because the same feed is treated in the same process at the same conditions. (See the present specification, page 30, line 22 though page 36, line 3)

Claims 2, 4, and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freel et al. (5,792,340) in view of Ignasiak et al. (5,338,322)

Freel discloses a method for the fast pyrolysis of carbonaceous materials (e.g., heavy oil, coal, and petroleum derived liquids) involving rapid mixing. (See abstract; col. 6, line 64 through col. 7, line 43; col. 12, lines 9-27; claim 1)

Freel does not disclose a product having physical and chemical characteristics as claim in claim 2.

Ignasiak discloses Athabaska bitumen (see col. 4, line 36).

Regarding claim 2, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the process of Freel by using Athabaska bitumen of Ikura because any carbonaceous materials (e.g., petroleum derived liquids) can be employed as a feedstock in the process of Freel and Athabaska bitumen would be effectively upgraded in the process of Freel because Athabaska bitumen is a petroleum derived liquid. The liquid product of Freel would have inherently the claimed characteristics because the same feed

is treated in the same process at the same conditions. (See the present specification, page 36, line 5 though page 39, line 9)

Regarding claims 4 and 5, Freel does not disclose a VGO (vacuum gas oil) having a measured analine point from about 110 to 130° F, a calculated analine point from about 125 to 170° F, and comprising about 38 % of mono-aromatics. However, it is known in the art that a VGO is a hydrocarbon fraction having a boiling of from about 650 to about 1025° F. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the process of Freel by separating the liquid product to produce a VGO fraction as claimed because one of skill in the art would produce a VGO fraction from the liquid product if one desires to obtain a hydrocarbon fraction having a point of from about 650 to 1025° F. The VGO fraction of Freel would inherently have the claimed characteristics because the same feed is treated in the same process at the same conditions. (See the present specification page 46, line 25 though page 47, line 10)

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tam M. Nguyen whose telephone number is (703) 305-7715. The examiner can normally be reached on Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on 703-308-6824. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-5408 for regular communications and (703) 305-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Tam M. Nguyen
Examiner
Art Unit 1764

Tam Nguyen/ TN
March 21, 2003